



The Lower Fox River Basin and Green Bay

# Our Watershed

## Dairy Farmer Views on Lower Fox Water Resources

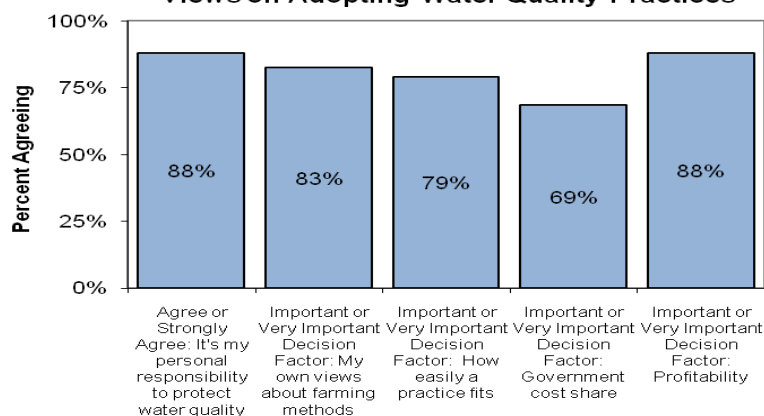
In the fall of 2007, 167 dairy farmers in the Lower Fox River Watershed were surveyed by the University of Wisconsin Cooperative Extension. The goal of the study was to understand farmers' attitudes towards water resource issues and their interest in adopting water quality protection practices. The information is being used to design and evaluate conservation outreach and assistance programs.

Farmers in the Lower Fox watershed placed a very high value on water quality. Eighty-three percent (83%) of the respondents disagreed that it was okay to reduce water quality for economic development (see Table 1). A large majority of farmers thought that their behavior could have a direct impact on water quality and that it was their personal responsibility to protect it.

While farmers placed a high value on water quality, they did not identify any severe problems with pollution in the Lower Fox River Watershed. In fact, the worst consequence farmers associated with poor water quality was excessive aquatic plant and algae growth. The most troubling pollutant identified was sediment in either local streams or the waters of Green Bay. Still, the majority of farmers saw the pollutants and their consequences as only a slight problem.

Most farmers did not feel that agriculture was a problematic source of water pollution. For example, over 60% of all farmers identified lawn care products and industry discharges either as moderate or severe problems (see Table 2). By comparison, less than 1 in 5 identified agricultural erosion, field or feedlot runoff or farm pesticide runoff as moderate or severe problems. Over twice as many farmers saw waterfowl droppings as a bigger problem than field applied manure runoff. (Continued on Page Two)

**Table 1**  
**Views on Adopting Water Quality Practices**



## Watershed Moments

**Notice of Public Hearing**  
**Land and Water Resource**  
**Management Plan (LWRM Plan)**  
**for 2009-2013**

**October 27, 2008 at 5:30 p.m.**

**WI DNR Water & Wastewater**  
**Operator & Licensing Training**  
**Calendar**

**EVENTS, CONFERENCES, SYMPOSIUMS**

**Great Lakes Urban**  
**Habitat Restoration**

**January 22-23, 2009—Chicago**

**Fifth Annual Watershed**  
**Symposium**

**March 18, 2009—Green Bay**

**Water Quality Hike**

**March 21, 2009—Green Bay**

**Earth Week 2009**  
**April 18-26—Green Bay**

If you have a Watershed Moment to contribute, contact Trisha Cooper at (920) 465-2979 or email her at [adamta26@uwgb.edu](mailto:adamta26@uwgb.edu)

### **Dairy Farmer Views—Continued**

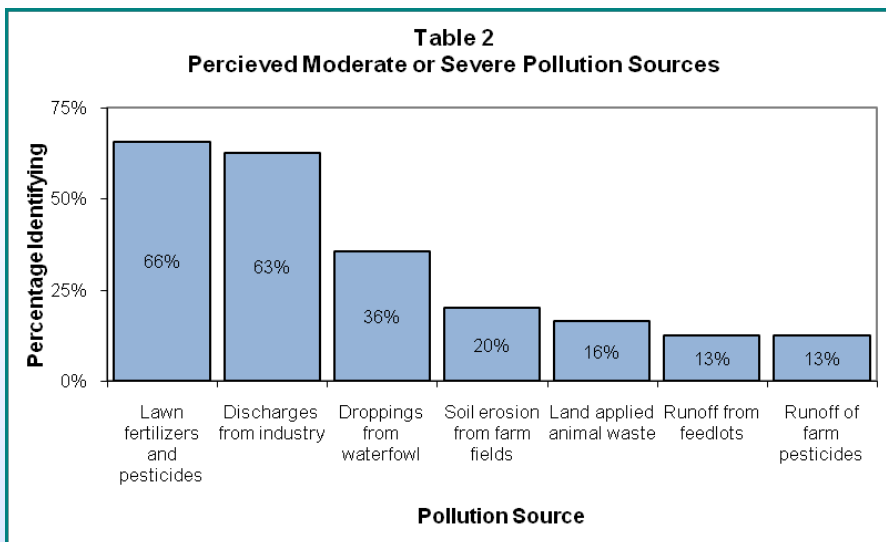
Fourteen percent (14%) of the Lower Fox dairy farmers agreed that they would personally pay more to protect water quality. This response is consistent with other results in the survey that showed that financial reasons were highly important to most farmers when making decisions about new management practices. In addition to profitability, farmers also indicated that the adoption of new practices largely depends on their own views on farming, how easily the practice fits and how much government cost share is available.

Lower Fox dairy farmers were also asked what water quality management practices they used or were willing to try. Two-thirds or more reported using a nutrient management plan, maintaining grass waterways, using reduced till or keeping livestock from streams. Less than one third reported they would try using rotational grazing or invest in producing energy from animal waste. When it comes to information about these new management practices, the three preferred information sources are local farm co-ops and crop consultants, county land conservation departments and UW Extension.

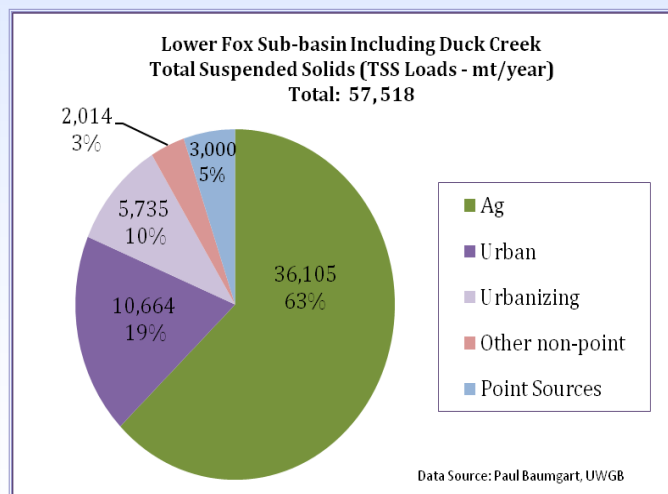
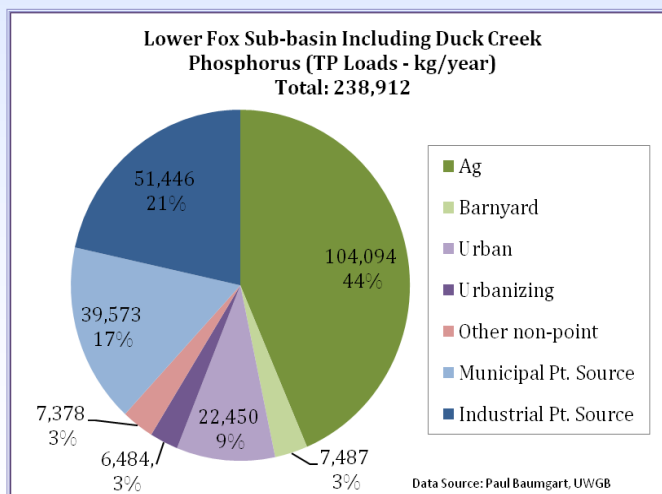
Lower Fox dairy farmers also reported several interesting demographic characteristics about themselves and their farms. Nearly 90% reported that they were either a sole owner operator or in a partnership with their spouse. In addition, nearly three quarters of all dairy farmers reported being at least the second generation of farmer, and most have lived on their farm for at least 20 years. Despite this strong legacy of family farming, 42% reported that it was unlikely that another family member would take over their farm when they retired some day. Finally, while there has been much discussion of ethanol production, only 1 in 20 Lower Fox Dairy farmers reported changing their crop rotation for ethanol production in 2007.

***Developed by Ken Genskow and Bob Smail.***

***University of Wisconsin-Extension, Environmental Resources Center, Madison, WI.***



### **We all contribute. We all can work together to clean our waters.**



## Nonpoint Source Stakeholder Views on Fox River Basin and Green Bay TMDL

Between October 2007 and May 2008 researchers from the University of Wisconsin-Green Bay facilitated conversations and conducted interviews with watershed stakeholders (including federal, state, county and local officials, CAFO operators, medium and small dairy farm operators, crop consultants and stormwater representatives). This research was conducted through the public outreach partnership (Page 4) for the Lower Fox River Basin and Green Bay's TMDL. Interviews and conversations with 67 stakeholders were held for the purposes of outreach, education and stakeholder involvement in the TMDL. The objective was to describe some of the greater concerns and issues found among participants within stakeholder groups. Understanding stakeholder concerns will assist in the development of strategies that improve implementation of the TMDL.

The TMDL Facilitated Stakeholder meetings included five different groups integrating a broad spectrum of backgrounds, experiences and education. Participants expressed various viewpoints, concerns, and opinions, yet there was consensus in several areas. After carefully listening, evaluating, and re-evaluating all stakeholder comments, several major recommendations were offered to the Wisconsin Department of Natural Resources in the report "Toward a TMDL for the Lower Fox River Basin: Findings from Facilitated Stakeholder Meetings and Interviews." We offer these recommendations here in condensed format.



**Keep the process open, inclusive and fair.** This is perhaps the central recommendation offered by participants in the study, and one that is reflected in many studies of efforts in other parts of the country. Participants remain concerned that the process includes them, and that everyone be involved as part of the solution.

**Strategies that are cost-effective and make business sense will most likely be adopted and will facilitate successful TMDL plans.**

Whether agricultural or stormwater runoff, all stakeholders were concerned with costs. In the spectrum of agricultural runoff, overwhelmingly throughout all stakeholder meetings, the idea that local producers must maintain a profitable business was a major theme. Maintaining a business means that basic economic factors come into play when farmers consider implementing pollution reduction practices. However, concepts such as cost-benefit analysis, cost effectiveness, and cost-sharing allowances are considered and evaluated by all non-point source stakeholder groups. Conservation practices that have the highest cost-benefit analysis and cost effectiveness should be promoted.

**Strategies that avoid "one-size-fits-all" requirements will likely be more effective.** Instead of blanket policies that are universally applied to all farms, a "prescription" plan for each farm should be used whenever possible. This "prescription" can be seen in part in carefully crafted Nutrient Management Plans that are currently implemented. Individual load reduction plans could be developed with an agronomist or a crop consultant and the farmer after careful analysis of such things as slope of the land, type of soil, location to waterways, etc. This type of plan would be more effective in controlling phosphorus and sediment and take into account the field conditions of each farm. Furthermore, operating within restrictive budgets and land availability, each municipality should be allowed to come to the table with creative and innovative solutions and strategies that could best be used in otherwise restrictive situations.

**Communicate with all stakeholders and provide opportunities for input into the process, as well as for leadership.** Stakeholders participating in this study indicate a desire to remain involved as the TMDL enters the Development Phase, and then shifts to implementation strategies. Multiple methods of communication will be important, as will the recognition that communication should happen before decisions are made.

**Engage and educate the public to obtain their support.** Stakeholders, whether agricultural or stormwater, are well aware of water quality issues and most of them are conscientious in their approach to conservation and protecting natural resources. However, they also know that education plays an important, supportive role to the success of this TMDL. Changing public perception, increasing the public's value of water quality, helping individuals make connections in understanding water quality and their actions, and changing public behavior toward water quality are all critical to the success of a TMDL. Engaging them through public education may increase individual and community involvement of the TMDL and help to create a "team approach." Involving other key actors from fishing and boating interest groups would also improve connections to our water heritage.



**Consider innovative strategies.** Numerous comments by participants pointed to the need to develop fresh approaches in addition to the regulatory and non-regulatory strategies that were part of the initial report. For example, effluent trading programs may be considered in certain parts of the basin; so, too, might innovative farming practices. Creative and innovative ideas will be needed to solve the complexity of stormwater and agricultural issues this TMDL addresses. As one agency stakeholder stated, "Don't limit ourselves. We need to step out of the box. Other solutions may work. We need to be creative, focus on pollution prevention, set limits, and develop policies where there are gaps." (Continued on Page Four)

### Stakeholder Views—Continued

**Consider involving stakeholders in watershed teams for implementation.** Studies of watershed partnerships suggest the need for ownership by stakeholders, as well as the development of mutual trust and shared responsibility. Studies also reflect the importance of local values and visions being incorporated in implementation. Local impacts are easier to measure, to understand and to celebrate. It may be that local high school groups monitoring changes in a community creek or providing input to local watershed teams may do more to encourage behavior of local stakeholders than solely relying on a basin-wide effort.

**Conclusion:** The opinions, backgrounds, experiences and education of stakeholders participating in this TMDL study reflect the wide diversity that is found throughout the Lower Fox River basin. The Lower Fox River and Bay of Green Bay is a complex amalgamation of agricultural and urban influences significantly impacting a water resource that, in itself, is richly diverse in flora and fauna. Economic, social and cultural interests must be carefully balanced upon the supporting foundation of this important watershed.

According to participants, the key to a successful TMDL is to avoid a tug-of-war that is fought between individual groups of stakeholders and instead create a collaborative and cooperative effort that will preserve the area's strong water heritage, champion clean and healthy water resources while still balancing and maintaining economic stability. Central to successful implementation, as suggested by literature and participants in this study, is the continued commitment of the DNR to involve stakeholders in decisions about strategies employed in meeting the TMDL goal, communication with stakeholders, and to employ flexible, tailored solutions.

*Written by Denise Scheberle and Trisha Cooper*

*Public and Environmental Affairs, University of Wisconsin—Green Bay*



**Partners working together on this TMDL include the Wisconsin Department of Natural Resources (DNR), U.S. Environmental Protection Agency (EPA), University of Wisconsin-Green Bay, University of Wisconsin-Extension, University of Wisconsin Sea Grant Institute, Green Bay Metropolitan Sewerage District, Brown County Land and Water Conservation Department, the U.S. Geological Survey, and the Oneida Nation, among others.**



**But we need YOU!** You and your neighbors are the most important team-members in this TMDL. We can not successfully clean our waters without your help. You can help to improve water quality and make the Lower Fox River watershed a healthier and cleaner watershed simply by reducing the amount of chemicals and toxins you use in and around your home.

***We are tied to the river.*** Our quality of life, economic vitality, sense of place, community pride and recreational activities are closely connected to the Fox River and Bay of Green Bay.

***We understand the challenges.*** Yet through cooperation, we can all work toward the same goal—a cleaner watershed. ***We can make a difference.*** Numerous examples of small “wins” exist in the basin; local heroes and champions have made progress in improving water quality.

***We'll do it together.***

#### **For more information on water quality:**

Contact your county conservation department: <http://www.wlwca.org/Pages/LCDWeb.htm>

Contact a DNR field representative: <http://www.dnr.state.wi.us/org/caer/cs/ServiceCenter/Locations.htm>

#### **Newsletter contact:**

**Trisha Cooper, UW-Green Bay, email at [adamta26@uwgb.edu](mailto:adamta26@uwgb.edu) or call (920) 465-2979**